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HSML, P.C.

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Amendments to the Drawings:

The attached sheets of drawings includes Figs. 1-6, which replaces the original sheets including Figs. 1-6. The solid black shading has been deleted. The irregular edges of the femoral head are better demonstrated from Figure to Figure. The lines, numbers and letters have been made uniformly and well defined.

Attachment: Replacement Sheets Figs. 1-6

Annotated Sheets Showing Changes Figs. 1-6

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REMARKS

The drawings have been replaced. A substitute Specification has been provided to correct minor errors and improve the grammar and syntax. No new matter has been added. Claim 1 remains pending. Reconsideration and reexamination of the application, as amended, are requested.

The Examiner objected to the drawings. The drawings have been replaced.

Approval of them, and acceptance of the new set of drawings as a formal set is requested.

A substitute specification has been provided. The Examiner's comments have been considered. Corrections and improvements to syntax have been made. A marked-up copy and a clean copy are attached. No new matter has been added.

The Examiner rejected claim 1 under 35 USC 102(b) as being anticipated by Sioufi (US 5,409,489). The rejection is traversed. Sioufi does not disclose "a surgical step to osteotomize trochanteric area without detaching the greater trochanter". Hence, Sioufi does not anticipate the method of claim 1.

Discussion:

1. The anatomical location of the proximal femur is named femoral head, neck, trochanter, and subtrochanter (meaning below the trochanter). The trochanteric area where the transtrochanteric rotational osteotomy is performed is located between the femoral neck and subtrochanteric area. Therefore transtrochanteric osteotomy is completely different from subtrochanteric osteotomy. To give more examples, a femoral neck fracture and an intertrochanteric fracture are regarded as different fracture type and their treatment protocol is completely different and also intertrochanteric fracture and subtrochanteric fracture are regarded as different fracture types and their treatment protocol is completely different. Sioufi's development (US patent 5,409,489) is about subtrochanteric osteotomy and the present invention is about transtrochanteric osteotomy.

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- 2. The subtrochanteric area is mainly composed of cortical bone while the trochanteric area is mainly composed of cancellous bone. Therefore the bone union in transtrochanteric osteotomy is much faster than in subtrochanteric osteotomy.
- 3. In the treatment of osteonecrosis of the femoral head, transtrochanteric osteotomy and subtrochanteric osteotomy are completely different and the fixation method is also quite different and the expectation of the result is also quite different. In subtrochanteric osteotomy, the femoral head is rotated in association with the greater trochanter which is not recommendable because the site of the greater trochanter is changed and the different location of the greater trochanter alters the biomechanics of the hip joint, while in the new transtrochanteric rotational osteotomy, only the femoral head and neck are rotated and the greater trochanter remains in the original site.
- 4. The amount of femoral head rotation is limited in subtrochanteric osteotomy. The amount of rotation is usually less than 30 degrees because the capsule of the hip joint and the surrounding muscles remain without detachment and this attachment of the soft tissues prevents further rotation, while the amount of femoral head rotation in the new transtrochanteric rotational osteotomy can be increased up to 130 degrees. This is possible because the joint capsule is incised circumferentially in the new transtrochanteric rotational osteotomy. The large amount of rotation gives more chance of success to preserve the femoral head even in a relatively large area of necrosis of the femoral head.
- 5. In subtrochanteric osteotomy, the contact surface of the osteotomy site becomes much smaller while the contact surface in the new transtrochanteric rotational osteotomy is preserved with surface to surface contact. This is possible because the osteotomy site is a right angle to the axis of rotation of the femoral head in the new transtrochanteric rotational osteotomy, while the osteotomy site is not perpendicular to the rotational axis of the femoral head in a subtrochanteric osteotomy.

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Conclusion:

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration and reexamination are requested. Allowance of claim 1 at an early date is solicited. Any questions regarding this communication can be directed to the undersigned attorney, Curtis B. Hamre, Reg. No. 29,165 at (612) 455-3802.

52835 PATENT TRADEMARK OFFICE

Dated: February 9, 2006

Respectfully submitted,

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